

March 12, 2020

**MEMORANDUM**

To: Karen Hays, Air Branch Chief *KH*

Through: Dika Kuoh, Assistant Branch Chief

From: DeAnna Oser, Ambient Monitoring Program Manager

RE: Covington December 17, 2019- January 19, 2020 Sampling Results for Ethylene Oxide

Samples of Ethylene Oxide (EtO) were taken in the Covington area to characterize the EtO concentration during the period of December 2019 and January 2020. Each of the samples were sent to Eastern Research Group (ERG) for analysis.

The Qualifier code of "LK" was given by ERG to indicate that the sample may be biased high. The Qualifier code of "2" was given two samples to indicate that the collection deviated from established procedures, but the integrity of the sample was not compromised. The samples listed as AF indicate that the sample was scheduled but not collected. On previous memos, this was listed as an X rather than AF, but we have changed the code to be more consistent with our other documentation. The samples listed as AN indicate that the machine malfunctioned while collecting the sample. No samples were taken at location C1, C6, C7, C8, or C9 during this period. Please note that ERG is now providing values for levels below the detection limit. The sample results for C2 on 1/16/2020 were omitted by the analytical laboratory and will be included with the results for next month.

Location	Date	Qualifier	EtO Concentration (ug/m <sup>3</sup> )
C2	12/17/2019	LK; 2	0.21
C2	12/19/2019	2	0.21
C2	12/23/2019		AN
C2	12/31/2019		0.29
C2	01/04/2020		AF
C2	01/07/2020		0.49
C2	01/10/2020	LK; 2	0.37
C2	01/14/2020		AF
C2	01/16/2020		**
C2	01/19/2020	LK	0.14
C3	12/17/2019		0.38
C3	12/19/2019	2	0.66

Location		Date		Qualifier		EtO Concentration (ug/m <sup>3</sup> )
C3		12/23/2019				AF
C3		12/31/2019		2		0.09
C3		01/04/2020		2		0.12
C3		01/07/2020		LK; 2		0.49
C3		01/10/2020				0.09
C3		01/14/2020		2		0.47
C3		01/16/2020				AF
C3		01/19/2020		LK; 2		0.47
C4		12/17/2019		LK; 2		0.19
C4		12/19/2019		2		0.28
C4		12/23/2019				AN
C4		12/31/2019		2		0.13
C4		01/04/2020		2		0.25
C4		01/07/2020		LK; 2		0.18
C4		01/10/2020				0.66
C4		01/14/2020				AF
C4		01/16/2020				AF
C4		01/19/2020		LK; 2		0.33
C5		12/17/2019				0.35
C5		12/19/2019		2		0.42
C5		12/23/2019				AN
C5		12/31/2019				0.14
C5		01/04/2020				AN
C5		01/07/2020		LK; 2		0.22
C5		01/10/2020		LK		0.26
C5		01/14/2020				AF
C5		01/16/2020				AF
C5		01/19/2020				0.56

If you have any questions, please let me know.

DGO/do



Eastern Research Group  
601 Keystone Park Drive  
Suite 700  
Morrisville, NC 27560

February 20, 2020

Ms. Jaime Gore  
U.S. Environmental Protection Agency, Region 4  
4244 International Pkwy, Suite 120  
Atlanta, GA 30354  
Project Name: Covington

Dear Ms. Jaime Gore,

This report contains the analytical results for the sample(s) received under chain(s) of custody by Eastern Research Group on 01/03/20 14:11 through 12/20/19 12:44.

The test results in this report are in compliance with NELAC accreditation requirements for the certified parameters. All analyses were performed as described in the US EPA-approved QAPP, under the contract for UATMP, NATTS, CSATAM, PAMS and NMOC support (US EPA Contract No. EP-D-14-030). This cover page is an integral part of this report, and any exceptions or comments are noted on the last page.

Release of the data contained in this data package and in the data submitted in the electronic data deliverable, has been authorized by the Program Manager, or the Program Manager's designee as verified by the following signature.

The issuance of the final Certificate of Analysis takes precedence over any previous Report. If you have any questions, please contact me at 919-468-7924.

Sincerely,

Julie Swift  
Program Manager  
[julie.swift@erg.com](mailto:julie.swift@erg.com)

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## CERTIFICATE OF ANALYSIS

U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

ATTN: Ms. Jaime Gore

PHONE: (404) 362-4912 FAX: (919) 541-0516

FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

### ANALYTICAL REPORT FOR SAMPLES

<u>SampleName</u>	<u>LabNumber</u>	<u>Matrix</u>	<u>Sampled</u>	<u>Received</u>
C2	0010322-01	Air	12/19/19 23:59	01/03/20 14:11
C3	0010322-02	Air	12/19/19 23:59	01/03/20 14:11
C4	0010322-03	Air	12/19/19 23:59	01/03/20 14:11
C5	0010322-04	Air	12/19/19 23:59	01/03/20 14:11
Field Blank	0010322-09	Air	12/30/19 00:00	01/03/20 14:11
C2	0010717-01	Air	12/31/19 23:59	01/07/20 10:29
C3	0010717-02	Air	12/31/19 23:59	01/07/20 10:29
C4	0010717-03	Air	12/31/19 23:59	01/07/20 10:29
C5	0010717-04	Air	12/31/19 23:59	01/07/20 10:29
C3	0010907-02	Air	01/04/20 23:59	01/09/20 11:06
C4	0010907-03	Air	01/04/20 23:59	01/09/20 11:06
C3	0011423-01	Air	01/07/20 23:59	01/14/20 12:28
C4	0011423-02	Air	01/07/20 23:59	01/14/20 12:28
C5	0011423-03	Air	01/07/20 23:59	01/14/20 12:28
C2	0011423-04	Air	01/10/20 23:59	01/14/20 12:28
C3	0011423-05	Air	01/10/20 23:59	01/14/20 12:28
C4	0011423-06	Air	01/10/20 23:59	01/14/20 12:28
C5	0011423-07	Air	01/10/20 23:59	01/14/20 12:28
C2	0011618-01	Air	01/07/20 23:59	01/16/20 13:32
C3	0011705-02	Air	01/14/20 23:59	01/17/20 10:58
C2	0012317-01	Air	01/19/20 23:59	01/23/20 12:26
C3	0012317-02	Air	01/19/20 23:59	01/23/20 12:26
C4	0012317-03	Air	01/19/20 23:59	01/23/20 12:26

Eastern Research Group

*The results in this report apply only to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*





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**FILE #:** 4222.00

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**AQS SITE CODE:**

**SITE CODE:** Covington

C5	0012317-04	Air	01/19/20 23:59	01/23/20 12:26
C2	9122019-01	Air	12/17/19 23:59	12/20/19 12:44
C3	9122019-02	Air	12/17/19 23:59	12/20/19 12:44
C4	9122019-03	Air	12/17/19 23:59	12/20/19 12:44
C5	9122019-04	Air	12/17/19 23:59	12/20/19 12:44



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REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C2

Lab ID: 0010322-01

Sampled: 12/19/19 23:59

Pressure @ Receipt: 0.75" Hg

Canister #: SAT070

Received: 01/03/20 14:11

Comments:

Analyzed: 01/10/20 14:04

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.118	0.21		0.0250



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REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C3

Lab ID: 0010322-02

Sampled: 12/19/19 23:59

Pressure @ Receipt: 0.75" Hg

Canister #: SAT122

Received: 01/03/20 14:11

Comments:

Analyzed: 01/10/20 15:00

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.365	0.66		0.0250



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FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C4

Lab ID: 0010322-03

Sampled: 12/19/19 23:59

Pressure @ Receipt: 0.75" Hg

Canister #: SAT166

Received: 01/03/20 14:11

Comments:

Analyzed: 01/10/20 15:56

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.153	0.28		0.0250



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FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C5

Lab ID: 0010322-04

Sampled: 12/19/19 23:59

Pressure @ Receipt: 0" Hg

Canister #: 5127

Received: 01/03/20 14:11

Comments:

Analyzed: 01/10/20 16:51

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.230	0.42		0.0250



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FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: Field Blank

Lab ID: 0010322-09

Sampled: 12/30/19 00:00

Pressure @ Receipt: 30" Hg

Canister #: A21026

Received: 01/03/20 14:11

Comments: Field Blank

Analyzed: 01/10/20 21:28

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	ND	ND	U	0.0250



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FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C2

Lab ID: 0010717-01

Sampled: 12/31/19 23:59

Pressure @ Receipt: 0" Hg

Canister #: 5045

Received: 01/07/20 10:29

Comments: Received at ambient

Analyzed: 01/09/20 03:48

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.161	0.29		0.0250



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FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C3

Lab ID: 0010717-02

Sampled: 12/31/19 23:59

Pressure @ Receipt: 0" Hg

Canister #: SAT177

Received: 01/07/20 10:29

Comments: Received at ambient

Analyzed: 01/09/20 18:20

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.0493	0.09		0.0250





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FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C4

Lab ID: 0010717-03

Sampled: 12/31/19 23:59

Pressure @ Receipt: 0" Hg

Canister #: SAT170

Received: 01/07/20 10:29

Comments: Received at ambient

Analyzed: 01/09/20 19:15

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.0715	0.13		0.0250



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FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C5

Lab ID: 0010717-04

Sampled: 12/31/19 23:59

Pressure @ Receipt: 0" Hg

Canister #: 5062

Received: 01/07/20 10:29

Comments: Received at ambient

Analyzed: 01/09/20 20:11

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.0764	0.14		0.0250



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FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C3

Lab ID: 0010907-02

Sampled: 01/04/20 23:59

Pressure @ Receipt: 0" Hg

Canister #: 19297

Received: 01/09/20 11:06

Comments: Received at ambient

Analyzed: 01/15/20 02:25

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.0647	0.12		0.0250



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FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C4

Lab ID: 0010907-03

Sampled: 01/04/20 23:59

Pressure @ Receipt: 2.50" Hg

Canister #: A21005

Received: 01/09/20 11:06

Comments:

Analyzed: 01/15/20 03:20

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.139	0.25		0.0250



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FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C3

Lab ID: 0011423-01

Sampled: 01/07/20 23:59

Pressure @ Receipt: 0" Hg

Canister #: SAT038

Received: 01/14/20 12:28

Comments: Received at ambient

Analyzed: 01/23/20 17:14

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.270	0.49	LK	0.0250



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FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C4

Lab ID: 0011423-02

Sampled: 01/07/20 23:59

Pressure @ Receipt: 0" Hg

Canister #: SAT018

Received: 01/14/20 12:28

Comments: Received at ambient

Analyzed: 01/23/20 19:22

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.101	0.18	LK	0.0250



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FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C5

Lab ID: 0011423-03

Sampled: 01/07/20 23:59

Pressure @ Receipt: 0" Hg

Canister #: A21073

Received: 01/14/20 12:28

Comments: Received at ambient

Analyzed: 01/23/20 20:27

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.119	0.22	LK	0.0250



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FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C2

Lab ID: 0011423-04

Sampled: 01/10/20 23:59

Pressure @ Receipt: 0" Hg

Canister #: SAT050

Received: 01/14/20 12:28

Comments: Received at ambient

Analyzed: 01/23/20 21:31

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.207	0.37	LK	0.0250





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REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C3

Lab ID: 0011423-05

Sampled: 01/10/20 23:59

Pressure @ Receipt: 3.50" Hg

Canister #: 18824

Received: 01/14/20 12:28

Comments:

Analyzed: 01/23/20 22:35

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.0483	0.09		0.0250



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FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C4

Lab ID: 0011423-06

Sampled: 01/10/20 23:59

Pressure @ Receipt: 4.50" Hg

Canister #: SAT011

Received: 01/14/20 12:28

Comments:

Analyzed: 01/23/20 23:40

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.363	0.66		0.0250



## CERTIFICATE OF ANALYSIS

U.S. Environmental Protection Agency, Region 4

4244 International Pkwy, Suite 120

Atlanta, GA 30354

ATTN: Ms. Jaime Gore

PHONE: (404) 362-4912 FAX: (919) 541-0516

FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C5

Lab ID: 0011423-07

Sampled: 01/10/20 23:59

Pressure @ Receipt: 2.50" Hg

Canister #: SAT118

Received: 01/14/20 12:28

Comments:

Analyzed: 01/24/20 00:44

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.142	0.26	LK	0.0250



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FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C2

Lab ID: 0011618-01

Sampled: 01/07/20 23:59

Pressure @ Receipt: 0" Hg

Canister #: SAT113

Received: 01/16/20 13:32

Comments: Received at ambient

Analyzed: 01/24/20 06:05

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.271	0.49		0.0250



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Atlanta, GA 30354

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FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C3

Lab ID: 0011705-02

Sampled: 01/14/20 23:59

Pressure @ Receipt: 16.00" Hg

Canister #: SAT184

Received: 01/17/20 10:58

Comments:

Analyzed: 01/21/20 21:18

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.258	0.47		0.0250



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ATTN: Ms. Jaime Gore

PHONE: (404) 362-4912 FAX: (919) 541-0516

FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C2

Lab ID: 0012317-01

Sampled: 01/19/20 23:59

Pressure @ Receipt: 0" Hg

Canister #: SAT138

Received: 01/23/20 12:26

Comments: Received at ambient

Analyzed: 01/28/20 03:57

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.0758	0.14	LK	0.0250



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Atlanta, GA 30354

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PHONE: (404) 362-4912 FAX: (919) 541-0516

FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C3

Lab ID: 0012317-02

Sampled: 01/19/20 23:59

Pressure @ Receipt: 0" Hg

Canister #: SAT185

Received: 01/23/20 12:26

Comments: Received at ambient

Analyzed: 01/28/20 05:01

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.260	0.47	LK	0.0250



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Atlanta, GA 30354

ATTN: Ms. Jaime Gore

PHONE: (404) 362-4912 FAX: (919) 541-0516

FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C4

Lab ID: 0012317-03

Sampled: 01/19/20 23:59

Pressure @ Receipt: 0" Hg

Canister #: A21067

Received: 01/23/20 12:26

Comments: Received at ambient

Analyzed: 01/28/20 06:06

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.181	0.33	LK	0.0250





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4244 International Pkwy, Suite 120

Atlanta, GA 30354

ATTN: Ms. Jaime Gore

PHONE: (404) 362-4912 FAX: (919) 541-0516

FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C5

Lab ID: 0012317-04

Sampled: 01/19/20 23:59

Pressure @ Receipt: 0" Hg

Canister #: 5059

Received: 01/23/20 12:26

Comments: Received at ambient

Analyzed: 01/28/20 07:10

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.308	0.56		0.0250



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ATTN: Ms. Jaime Gore

PHONE: (404) 362-4912 FAX: (919) 541-0516

FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C2

Lab ID: 9122019-01

Sampled: 12/17/19 23:59

Pressure @ Receipt: 0" Hg

Canister #: 5033

Received: 12/20/19 12:44

Comments: Received at ambient

Analyzed: 12/29/19 03:28

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.117	0.21	LK	0.0250



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Atlanta, GA 30354

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PHONE: (404) 362-4912 FAX: (919) 541-0516

FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C3

Lab ID: 9122019-02

Sampled: 12/17/19 23:59

Pressure @ Receipt: 7.50" Hg

Canister #: SAT164

Received: 12/20/19 12:44

Comments:

Analyzed: 12/29/19 04:32

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.209	0.38		0.0250



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Atlanta, GA 30354

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PHONE: (404) 362-4912 FAX: (919) 541-0516

FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C4

Lab ID: 9122019-03

Sampled: 12/17/19 23:59

Pressure @ Receipt: 0" Hg

Canister #: SAT012

Received: 12/20/19 12:44

Comments: Received at ambient

Analyzed: 12/29/19 05:36

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.106	0.19	LK	0.0250



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FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Description: C5

Lab ID: 9122019-04

Sampled: 12/17/19 23:59

Pressure @ Receipt: 8.50" Hg

Canister #: 5114

Received: 12/20/19 12:44

Comments:

Analyzed: 12/29/19 06:40

### Air Toxics by EPA Compendium Method TO-15

<u>Analyte</u>	<u>Results</u>		<u>Flag</u>	<u>MDL</u>
	<u>ppbv</u>	<u>ug/m<sup>3</sup></u>		<u>ppbv</u>
Ethylene oxide	0.191	0.35		0.0250



# CERTIFICATE OF ANALYSIS

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FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
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## Air Toxics by EPA Compendium Method TO-15 - Quality Control

### Batch B0A0806 - Summa Canister Prep

#### Blank (B0A0806-BLK1)

Prepared: 12/31/19 Analyzed: 01/08/20

Ethylene oxide	ND	ppbv				U
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#### Duplicate (B0A0806-DUP1)

Source: 0010717-01

Prepared: 12/31/19 Analyzed: 01/09/20

Ethylene oxide	0.151	ppbv	0.16	6.73	25	
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### Batch B0A0903 - Summa Canister Prep

#### Blank (B0A0903-BLK1)

Prepared: 12/31/19 Analyzed: 01/09/20

Ethylene oxide	ND	ppbv				U
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### Batch B0A1009 - Summa Canister Prep

#### Blank (B0A1009-BLK1)

Prepared: 12/31/19 Analyzed: 01/10/20

Ethylene oxide	ND	ppbv				U
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#### Duplicate (B0A1009-DUP1)

Source: 0010322-04

Prepared: 12/19/19 Analyzed: 01/10/20

Ethylene oxide	0.224	ppbv	0.23	2.82	25	
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### Batch B0A1407 - Summa Canister Prep

#### Blank (B0A1407-BLK1)

Prepared: 12/31/19 Analyzed: 01/14/20

Ethylene oxide	ND	ppbv				U
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### Batch B0A2105 - Summa Canister Prep

#### Blank (B0A2105-BLK1)

Prepared & Analyzed: 01/21/20

Ethylene oxide	ND	ppbv				U
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### Batch B0A2304 - Summa Canister Prep

#### Blank (B0A2304-BLK1)

Prepared & Analyzed: 01/23/20

Ethylene oxide	ND	ppbv				U
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#### Duplicate (B0A2304-DUP1)

Source: 0011423-01

Prepared: 01/04/20 Analyzed: 01/23/20

Ethylene oxide	0.254	ppbv	0.27	5.88	25	LK
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### Batch B0A2707 - Summa Canister Prep

#### Blank (B0A2707-BLK1)

Prepared & Analyzed: 01/27/20

Ethylene oxide	ND	ppbv				U
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### Batch B9L2803 - Summa Canister Prep

#### Blank (B9L2803-BLK1)

Prepared & Analyzed: 12/28/19

Ethylene oxide	ND	ppbv				U
----------------	----	------	--	--	--	---



## CERTIFICATE OF ANALYSIS

U.S. Environmental Protection Agency, Region 4

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Atlanta, GA 30354

ATTN: Ms. Jaime Gore

PHONE: (404) 362-4912 FAX: (919) 541-0516

FILE #: 4222.00

REPORTED: 02/20/20 12:31

SUBMITTED: 01/03/20 to 12/20/19

AQS SITE CODE:

SITE CODE: Covington

Analyte	Result	Units	% Difference	Limit (%)	Notes
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### Air Toxics by EPA Compendium Method TO-15 - Quality Control

#### Sequence 1912061

##### Calibration Check (1912061-CCV1)

Prepared & Analyzed: 12/28/19

Ethylene oxide	2.12	ppbv	-15.0	30.00
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#### Sequence 2001022

##### Calibration Check (2001022-CCV1)

Prepared & Analyzed: 01/08/20

Ethylene oxide	2.40	ppbv	-3.9	30.00
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#### Sequence 2001026

##### Calibration Check (2001026-CCV1)

Prepared & Analyzed: 01/09/20

Ethylene oxide	2.40	ppbv	-4.1	30.00
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#### Sequence 2001032

##### Calibration Check (2001032-CCV1)

Prepared & Analyzed: 01/10/20

Ethylene oxide	2.48	ppbv	-0.8	30.00
----------------	------	------	------	-------

Ethylene oxide	2.48	ppbv	-0.8	30.00
----------------	------	------	------	-------

#### Sequence 2001043

##### Calibration Check (2001043-CCV1)

Prepared & Analyzed: 01/14/20

Ethylene oxide	2.55	ppbv	2.1	30.00
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#### Sequence 2001057

##### Calibration Check (2001057-CCV1)

Prepared & Analyzed: 01/21/20

Ethylene oxide	3.14	ppbv	25.7	30.00
----------------	------	------	------	-------

#### Sequence 2001063

##### Calibration Check (2001063-CCV1)

Prepared & Analyzed: 01/23/20

Ethylene oxide	2.92	ppbv	16.7	30.00
----------------	------	------	------	-------

#### Sequence 2001070

##### Calibration Check (2001070-CCV1)

Prepared & Analyzed: 01/27/20

Ethylene oxide	2.77	ppbv	10.7	30.00
----------------	------	------	------	-------



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**ATTN:** Ms. Jaime Gore

**PHONE:** (404) 362-4912 **FAX:** (919) 541-0516

**FILE #:** 4222.00

**REPORTED:** 02/20/20 12:31

**SUBMITTED:** 01/03/20 to 12/20/19

**AQS SITE CODE:**

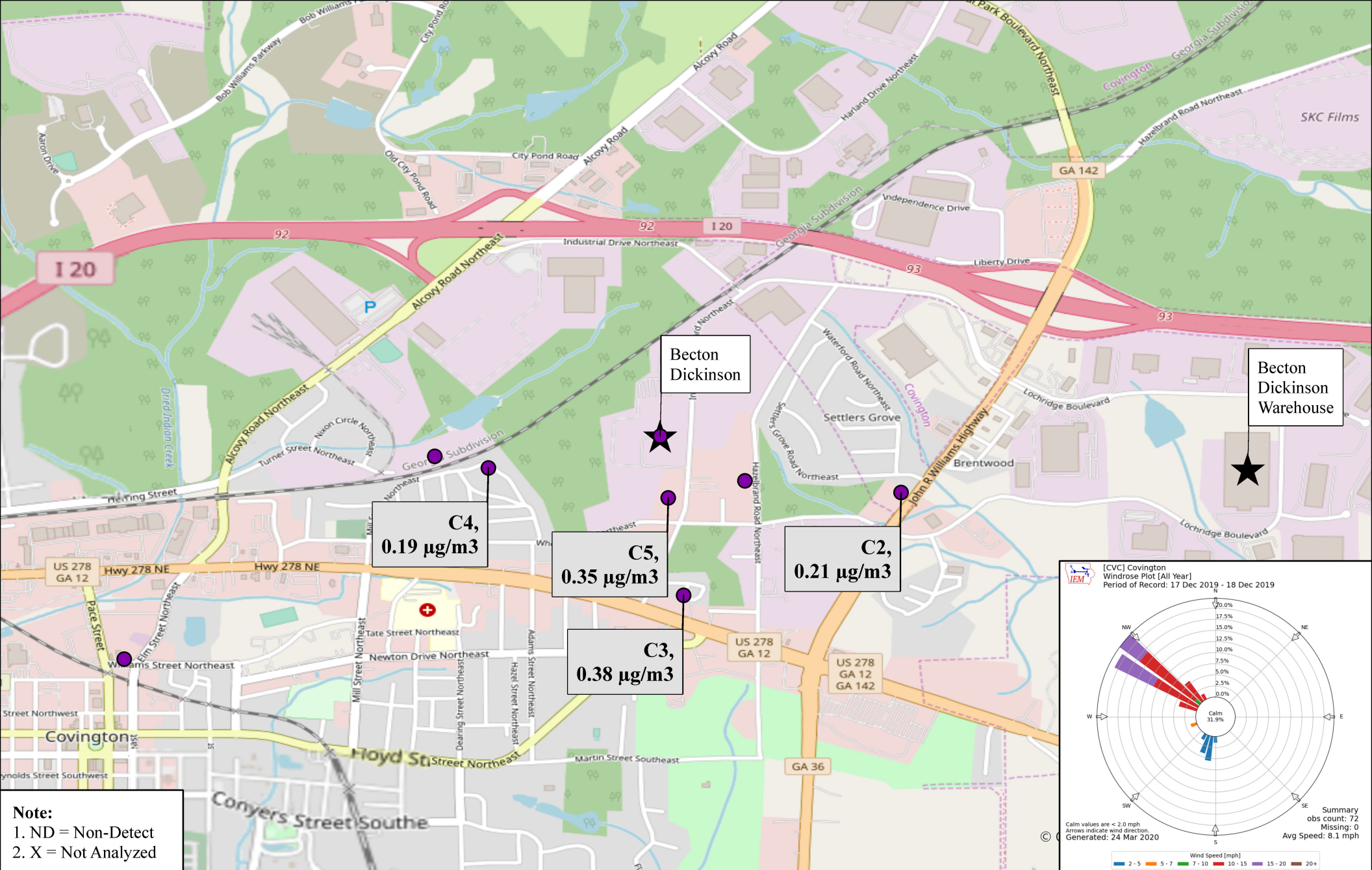
**SITE CODE:** Covington

### Notes and Definitions

U	Under Detection Limit
LK	Analyte identified; Reported value may be biased high.
ND	Analyte NOT DETECTED
NR	Not Reported
MDL	Method Detection Limit
RPD	Relative Percent Difference

Note: The test results meet all requirements of NELAC; however the following analytes are not accredited: 1,2,4-trimethylbenzene, 1,2-dibromoethane, 1,2-dichloropropane, 1,3,5-trimethylbenzene, 1,3-butadiene, acetylene, acrolein, bromochloromethane, bromodichloromethane, bromoform, carbon disulfide, dibromochloromethane, dichlorodifluoromethane, dichlorotetrafluoroethane, ethyl acrylate, ethyl tert butyl ether, ethylene oxide, hexachloro-1,3-butadiene, n-octane, propylene, tert amyl methyl ether, tetrachloroethylene, trans-1,2-dichloroethylene, trichlorofluoromethane, and trichlorotrifluoroethane.





0 0.17 0.34  
 Miles



Site ID, Concentration ( $\mu\text{g}/\text{m}^3$ )

Ethylene Oxide Sampling  
 Covington, GA

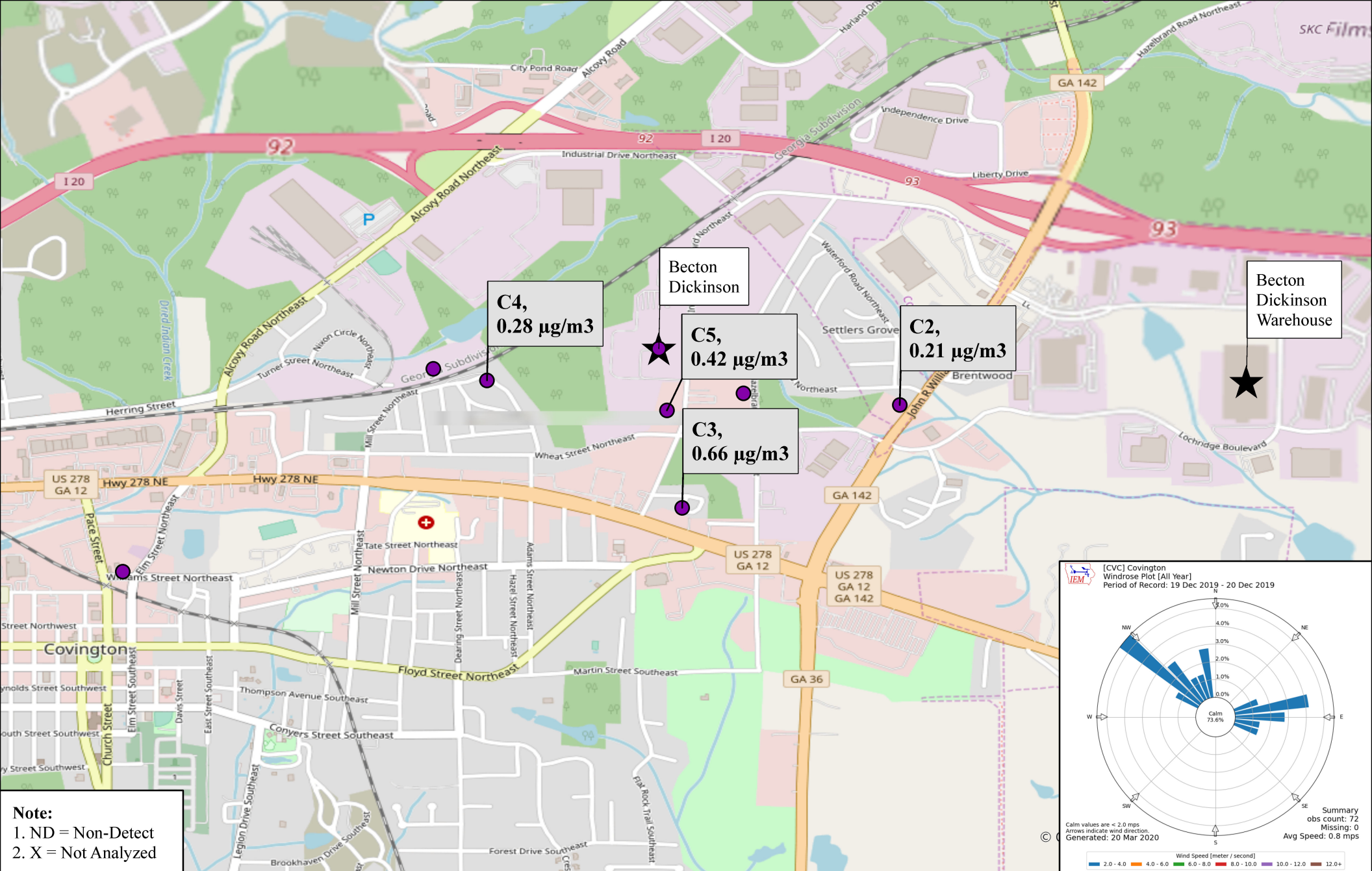
12/17/2019

Sampled By: Georgia Environmental Protection Division  
 Analyzed By: Eastern Research Group



**GEORGIA**  
 DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION



0 0.17 0.34  
Miles



Site ID, Concentration ( $\mu\text{g}/\text{m}^3$ )

Ethylene Oxide Sampling  
Covington, GA

12/19/2019

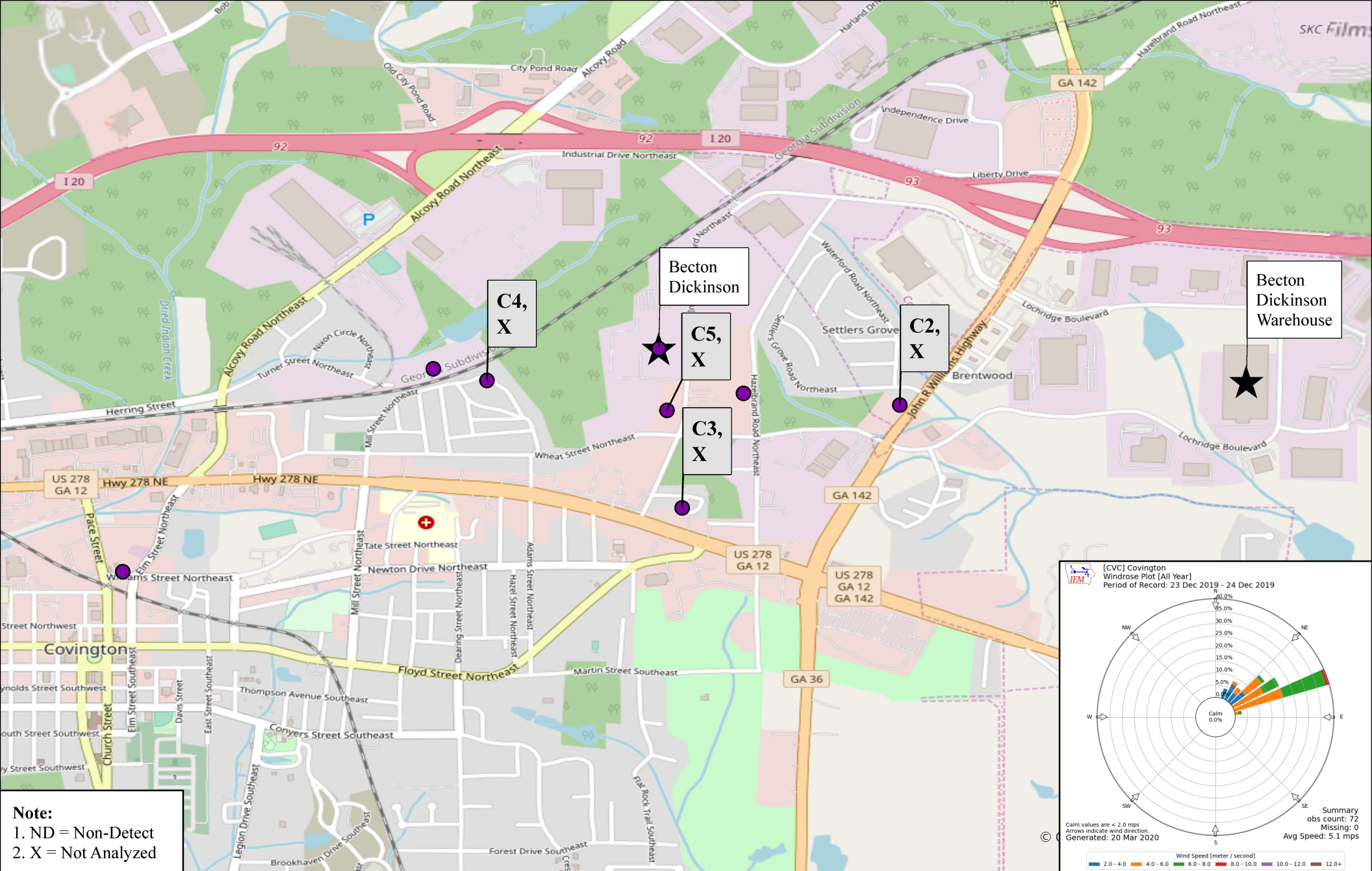
Sampled By: Georgia Environmental Protection Division  
Analyzed By: Eastern Research Group



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DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION





0 0.17 0.34  
 Miles



Site ID, Concentration ( $\mu\text{g}/\text{m}^3$ )

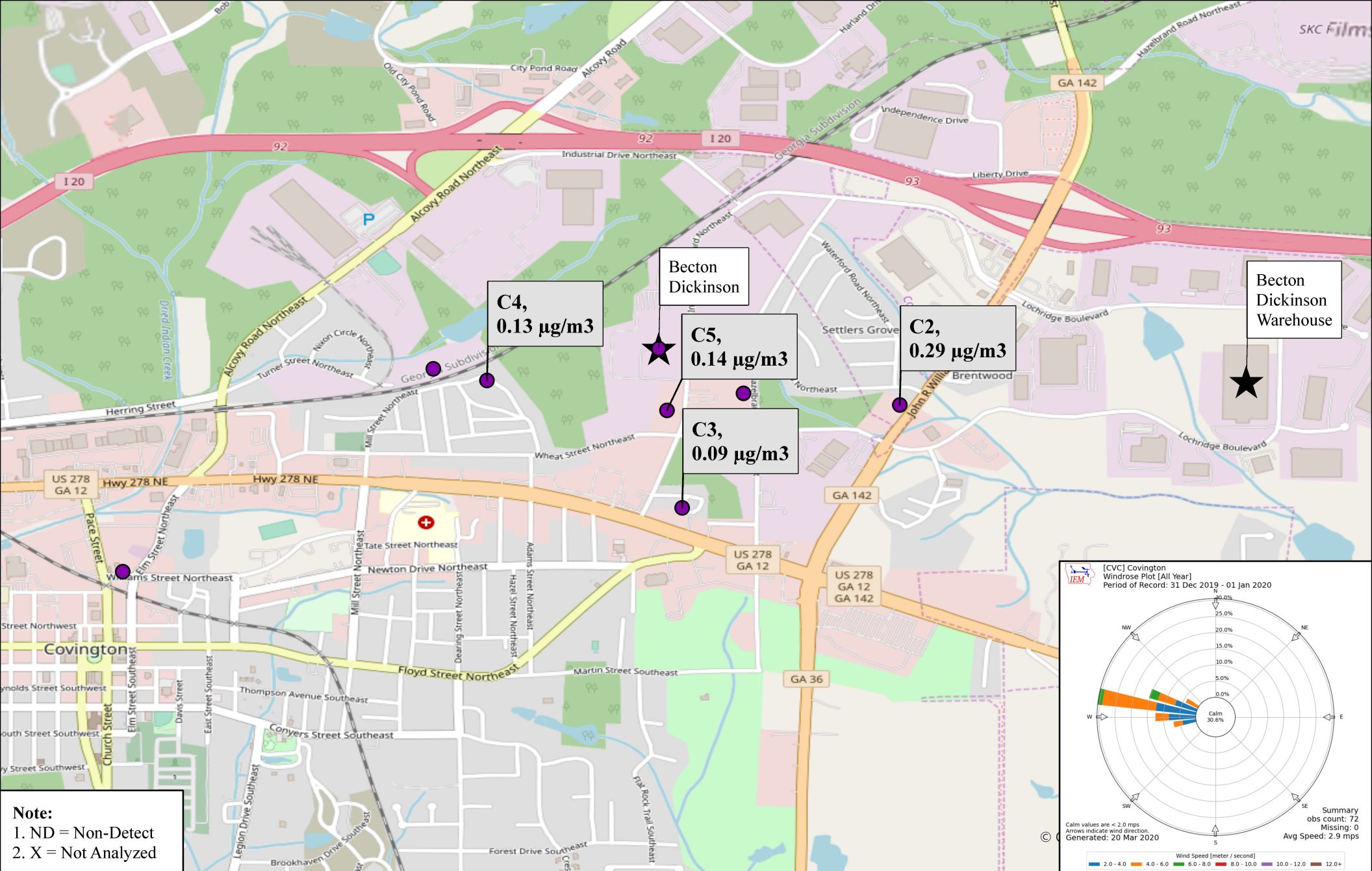
Ethylene Oxide Sampling  
 Covington, GA

12/23/2019  
 Sampled By: Georgia Environmental Protection Division  
 Analyzed By: Eastern Research Group



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 DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION



0 0.17 0.34  
 Miles



Ethylene Oxide Sampling  
 Covington, GA

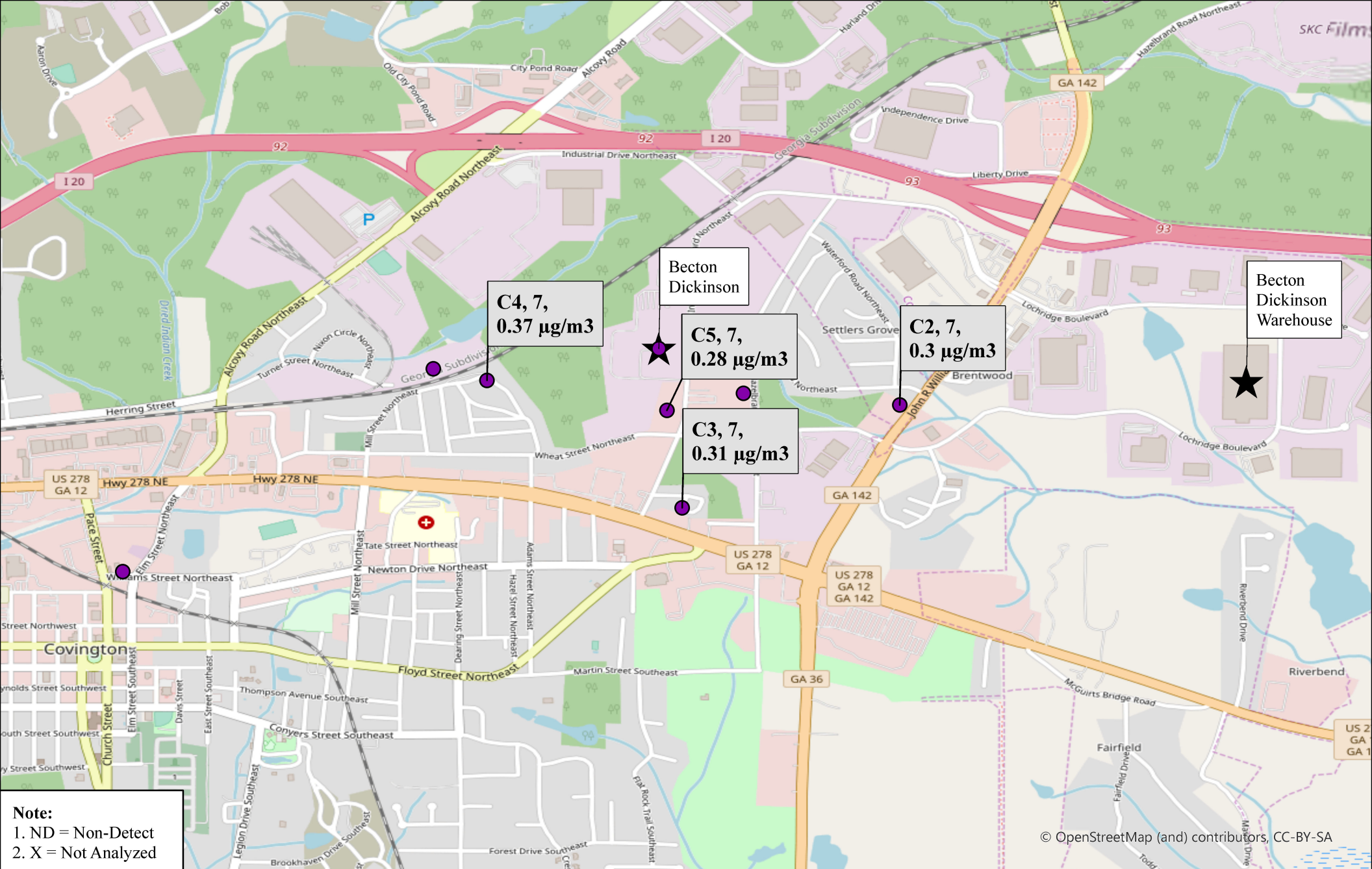
12/31/2019  
 Sampled By: Georgia Environmental Protection Division  
 Analyzed By: Eastern Research Group



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 DEPARTMENT OF NATURAL RESOURCES

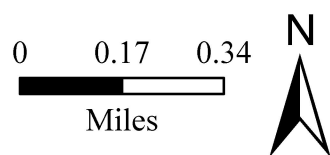
ENVIRONMENTAL PROTECTION DIVISION



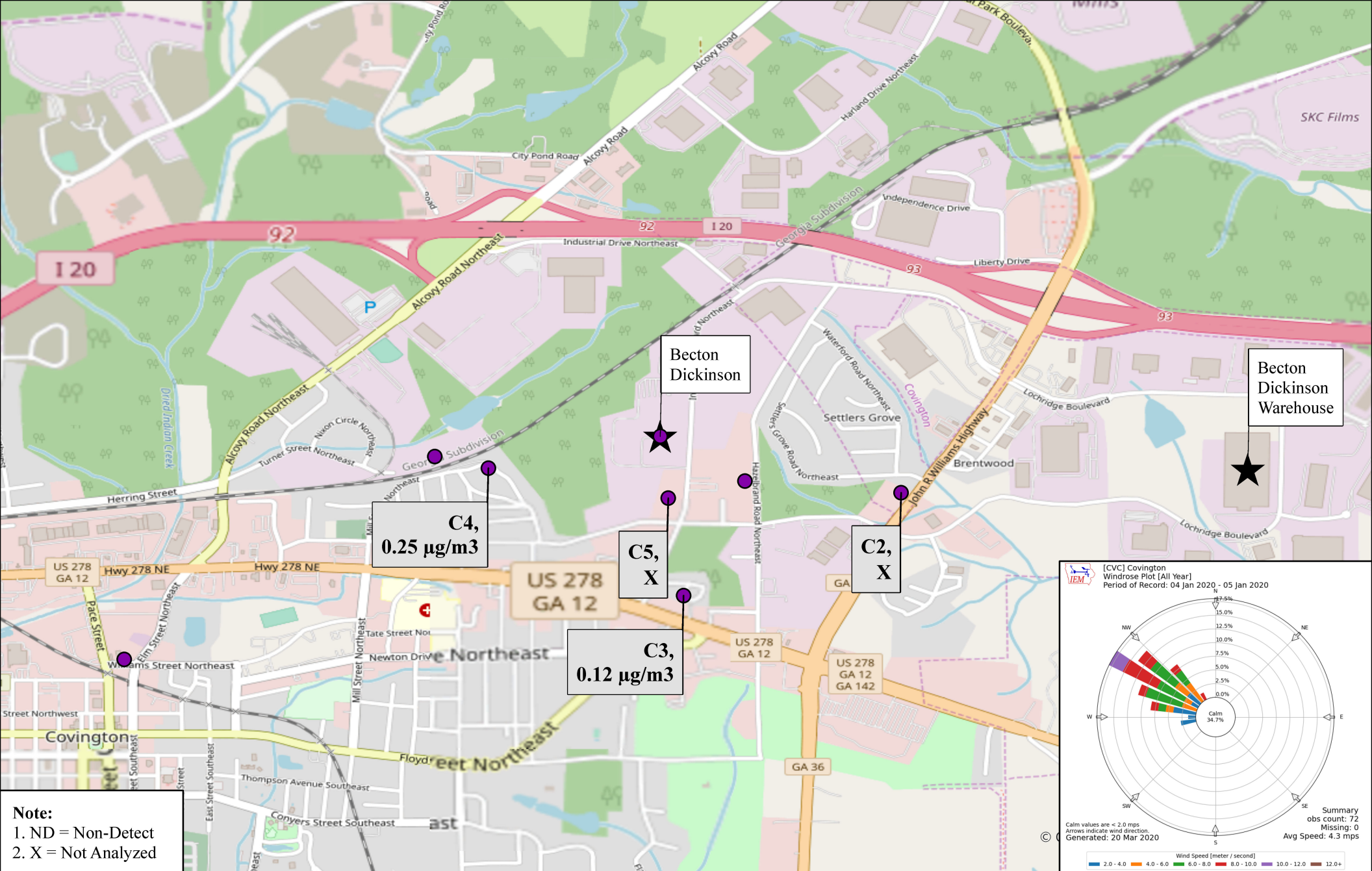


# Ethylene Oxide Sampling Covington, GA

December 2019 Site Average Values  
 Note: Not detectable values were included in average calculations as a value of 0.  
 Sampled By: Georgia Environmental Protection Division  
 Analyzed By: Eastern Research Group



**Site ID, Number of Samples,  
 Concentration (µg/m³)**



0 0.17 0.34  
 Miles



**Site ID, Concentration (µg/m³)**

Ethylene Oxide Sampling  
 Covington, GA

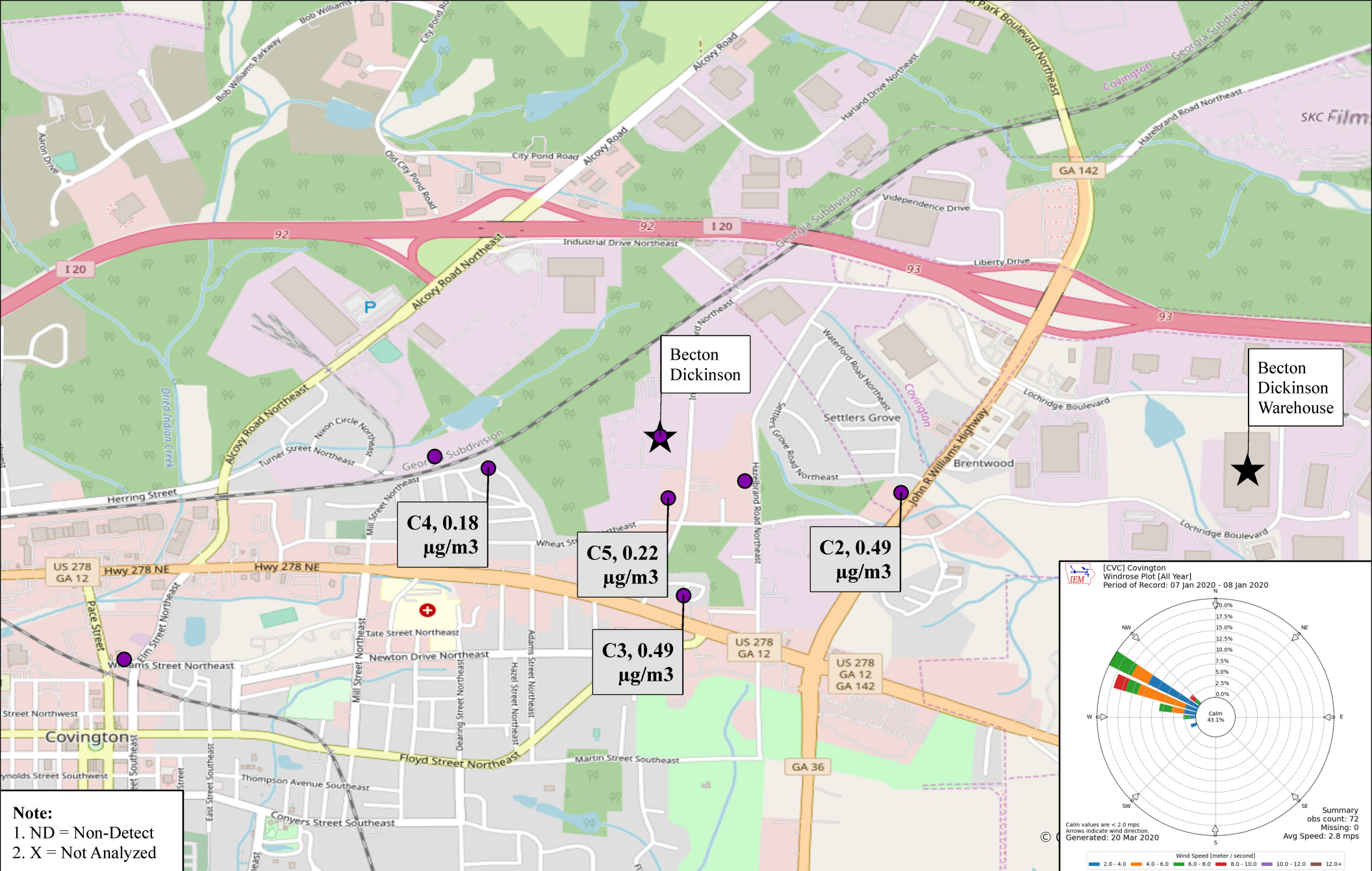
01/04/2020  
 Sampled By: Georgia Environmental Protection Division  
 Analyzed By: Eastern Research Group



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 DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION





0 0.17 0.34  
 Miles



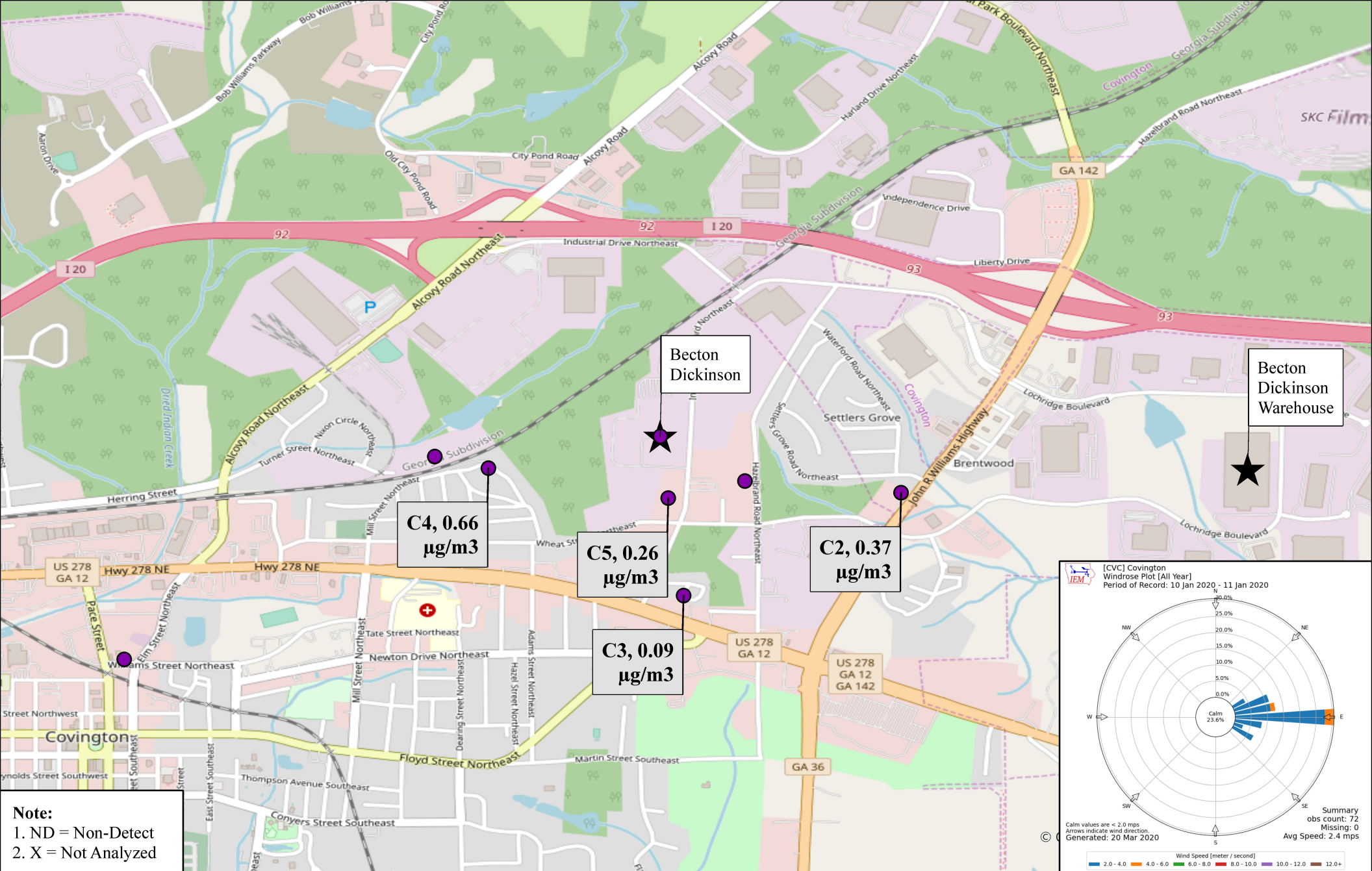
Ethylene Oxide Sampling  
 Covington, GA

01/07/2020  
 Sampled By: Georgia Environmental Protection Division  
 Analyzed By: Eastern Research Group



**GEORGIA**  
 DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION



0 0.17 0.34  
 Miles



**Site ID, Concentration (µg/m³)**

Ethylene Oxide Sampling  
 Covington, GA

01/10/2020

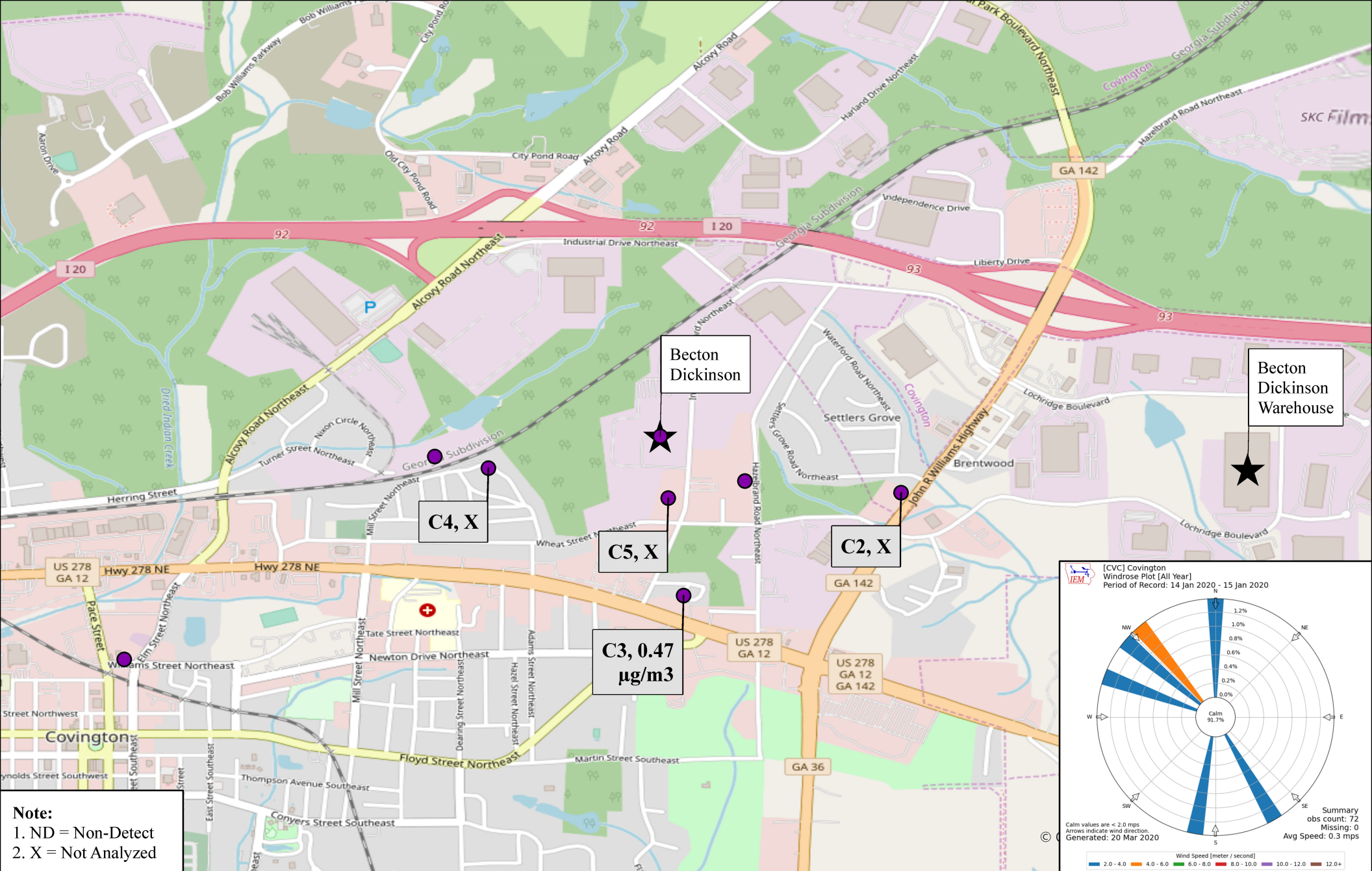
Sampled By: Georgia Environmental Protection Division  
 Analyzed By: Eastern Research Group



**GEORGIA**  
 DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION





Ethylene Oxide Sampling  
Covington, GA

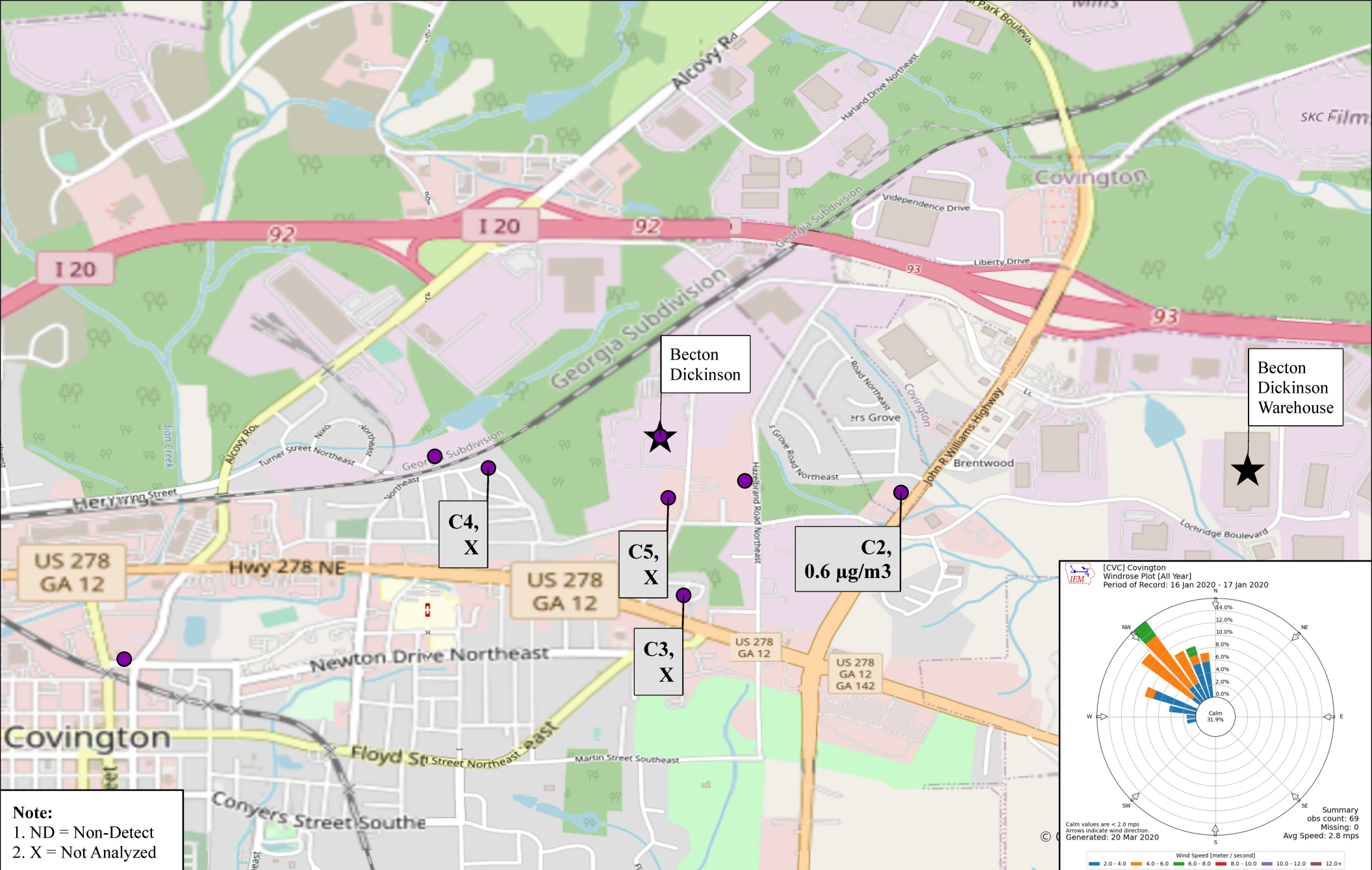
01/14/2020

Sampled By: Georgia Environmental Protection Division  
Analyzed By: Eastern Research Group



**GEORGIA**  
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION



0 0.17 0.34  
Miles



Site ID, Concentration ( $\mu\text{g}/\text{m}^3$ )

Ethylene Oxide Sampling  
Covington, GA

01/16/2020

Sampled By: Georgia Environmental Protection Division

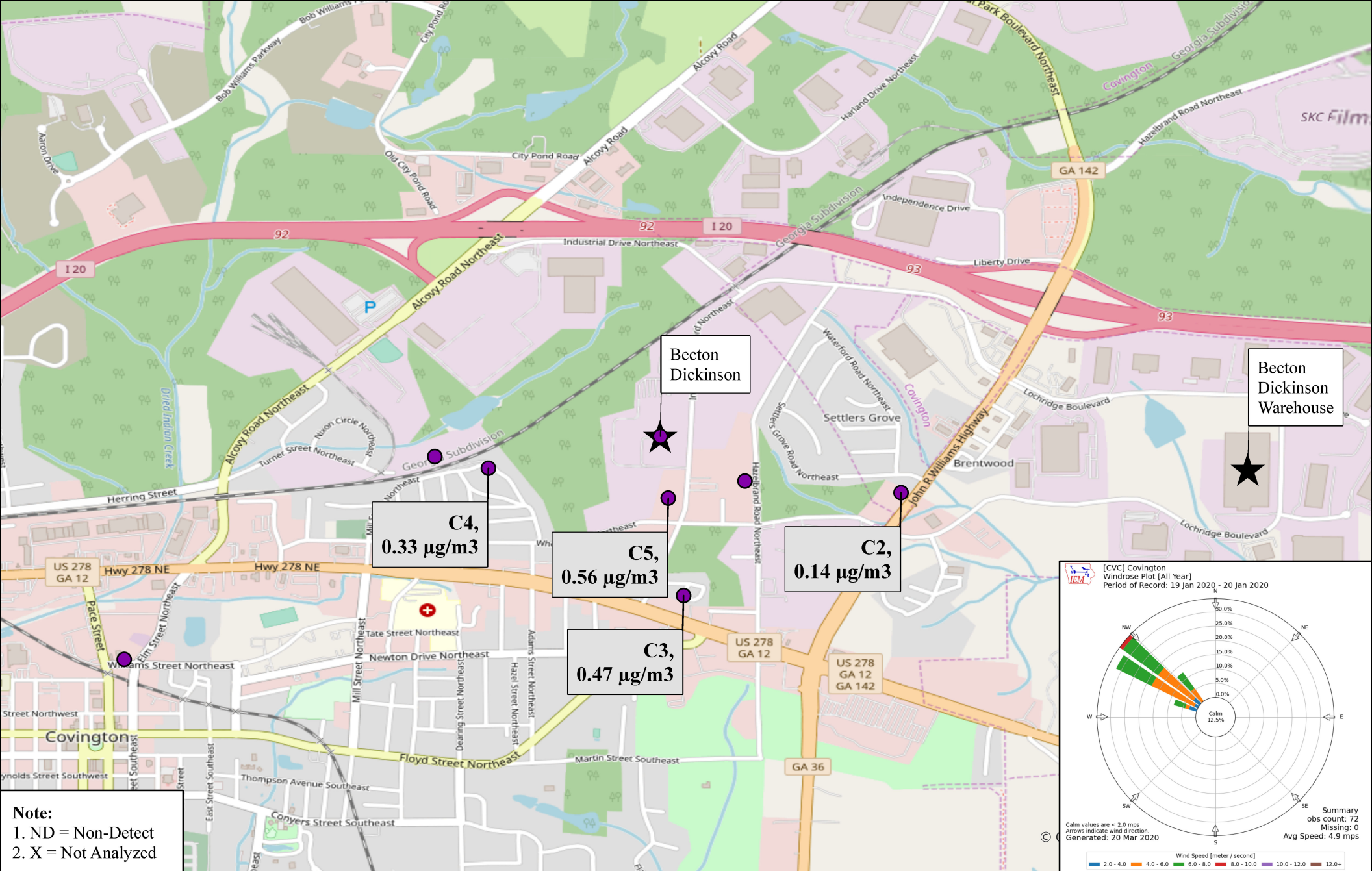
Analyzed By: Eastern Research Group



**GEORGIA**  
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION





0 0.17 0.34  
 Miles



Site ID, Concentration ( $\mu\text{g}/\text{m}^3$ )

Ethylene Oxide Sampling  
 Covington, GA

01/19/2020

Sampled By: Georgia Environmental Protection Division  
 Analyzed By: Eastern Research Group



**GEORGIA**  
 DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION